

CLAIMS

1. A light-diffusing sheet having a flat entrance surface and an exit surface parallel to the flat entrance surface, said light-diffusing sheet comprising:

a sheet body; and

a plurality of wedge-shaped parts, each being embedded on the side of the exit surface of the sheet body, having a section of a shape substantially resembling a wedge, expanding toward the exit surface, and being formed of a resin having a refractive index lower than that of a material of the sheet body;

wherein each of the side surfaces of each of the wedge-shaped parts is formed of inclined surfaces constituting a polygonal surface, angles formed by the inclined surfaces of each side surface and the perpendicular to the entrance surface gradually become greater toward the exit surface; and

an end of each of the wedge-shaped parts on the side of the entrance surface is flat surface parallel to the entrance surface.

2. The light-diffusing sheet according to claim 1, wherein the angle formed by the inclined surface, nearest to the exit surface, of the side surface of the wedge-shaped part and the perpendicular to the entrance surface is not smaller than twice the angle formed by the inclined surface, nearest to the entrance surface, of the side surface of the wedge-shaped part and the perpendicular to the entrance surface.

3. The light-diffusing sheet according to claim 1, wherein each of the wedge-shaped parts of the light-diffusing sheet is adjusted such that the ratio of light rays reflected in total reflection by the exit surface to all of the light rays incident on the entrance surface at incident angles in the range of 0° to 30° is in the range of 0.1% to 3%.

4. The light-diffusing sheet according to claim 1, wherein the ratio of the refractive index of the wedge-shaped parts to that of the sheet body is in the range of 0.90 to 0.97.

5. The light-diffusing sheet according to claim 1, wherein each of the wedge-shaped parts of the light-diffusing

sheet is adjusted such that the ratio of light rays reflected in total reflection at least twice on the side surfaces of the wedge-shaped parts to all of the light rays perpendicularly incident on the entrance surface is 1% or above.

6. The light-diffusing sheet according to claim 1 further comprising an auxiliary diffusing layer formed on the side of the exit surface of the sheet body.

7. The light-diffusing sheet according to claim 1, wherein the wedge-shaped parts are arranged at a fixed pitch P , and the flat end surfaces of the wedge-shaped parts have a width W in the range of $0.1P$ to $0.2P$.

8. The light-diffusing sheet according to claim 1, wherein light-absorbing particles are dispersed in the wedge-shaped parts.